



Code for Sustainable Homes

Summary of Changes to the Technical Guidance

April 2008



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Introduction

The purpose of this document is to record the changes between the October 2007 version of the Code for Sustainable Homes Technical Guidance and the April 2008 version.

The changes, which have been kept to a minimum, have been made in response to feedback from Code for Sustainable Homes assessors, developers and wider industry stakeholders. It also clarifies ambiguities and brings the Technical Guidance into line with new legislation.

Table 1 highlights the main changes.

Table 2 lists the minor changes.

Table 1: Main changes between October 2007 and April 2008 versions of the Code for Sustainable Homes Technical Guidance		
Code Category	Issue	Amendment
Introduction	Post Construction Process	Guidance on how to carry out a post construction assessment has been included.
Energy	Ene 1: Dwelling Emission Rate	The definition of Zero Carbon Home has been harmonised with that used for the exemption from Stamp Duty Land Tax.
		Small Scale Wind (Micro generation) is now dealt with under appendix M.
		Community hot water schemes are now allowed under SAP- new option Domestic Hot Water (DHW) from community scheme.
		Default factors for "in use" to be used for a variety of Mechanical Ventilation Systems. Mechanical Ventilation with Heat Recovery (MVHR) now recognised under SAP and not dealt with under Appendix Q.
		Community Geothermal heating systems now assessed the same way as waste heat from Power Stations.
		CO ₂ emissions associated with appliances and cooking is now explained in Section 14 of the main SAP text and can be factored in when building Zero Carbon properties.
		PV output on a block of flats to be averaged across the dwellings by net floor area. This includes instances where they serve only common parts. Special Case added: Photovoltaic panels in buildings with multiple dwellings.
		Addition of explanatory text covering technologies which take advantage of SAP assumptions specifically the Fuel Factor.
		Air-conditioning: Methodology clarified on how to deal with it.
	Mixed use developments: Energy use is apportioned using square meterage (not modelling).	
	Ene 7: Low or Zero Carbon (LZC) technologies	'Base case' definition has been reviewed and brought into line with that used for Pol2.
		This calculation method has been updated to bring the procedure in line with the revised version of SAP.
Surface Water Run-off	Sur 1: Management of Surface Water Run-off from developments	This issue has been significantly updated to take new guidance <i>PPS25: Development and Flood Risk</i> into consideration.
		The mandatory section has been divided from the section where credits are awarded. Basically the new mandatory statement, has the same intent as the previous mandatory element. Volumes and rates of runoff should not be worse after the development. The main changes are to align this with current best practice, improve definitions and give references to lend greater clarity on calculations and allowing for climate change.
	Sur 2: Flood Risk	Assessment criteria: Whilst this looks like there are lots of changes, basically it is the same as the previous version but has been aligned with PPS25, definitions clarified and referenced.
Waste	Was 2: Construction site waste management	Criteria Assessment, default cases: The threshold limit for developments requiring Site Waste Management Plans has been increased to £300,000 in line with new regulations.
Health and Wellbeing	Hea 4: Lifetimes Homes	Lifetime Homes is now a mandatory requirement for a Level 6 assessment.

Table 2: Minor changes between October 2007 and April 2008 versions of the Code for Sustainable Homes Technical Guidance

Code Category	Issue	Amendment
Whole document	All	Ambiguities have been clarified and typing errors corrected.
All issues	All	Evidence requirements have been reviewed with an aim to make them as easy and as streamlined as possible, while still ensuring the scheme remains technically robust.
All issues	All	Background information has been updated.
All issues	All	Definitions have been reviewed and clarified. This has resulted in deletions, additions and amendments as appropriate.
Introduction	All	This whole section has been updated and clarified.
Energy	Ene 1: Dwelling Emission Rate	Clarification on the zero carbon dwelling definition, regarding SAP 2005 and introduction of the need of a private wire arrangement for supply.
		Assessment methodology: Information for how to create the base case Target Emission Rate was added.
		A wood pellet stove with boiler has been added as a compliant technology.
		New definition for 'private wire arrangement'.
		Calculations procedures: These were clarified and an amendment made to the carbon emissions factor (SAP 2005) for electricity.
		Calculations procedures: LZC technologies not yet considered in SAP 2005 were updated and clarified.
		Special case: Renewable systems not currently dealt with under SAP 2005, was developed and clarified.
	Ene 3: Internal Lighting	The requirements in the criteria table are now to two decimal places.
		Special case added: LEDs.
		Clarification of a "fixing": that it can contain more than one light.
		Changed the requirement of all "rooms" to all "habitable rooms", throughout the criteria issue table.
	Ene 6: External Lighting	In the criteria table "low" was added to the dedicated energy fittings in space lighting and the requirement for needs of people who have visual impairment was deleted.
		Introduction of the BS to which statutory lighting needs to comply.
		Special cases were added: LEDs, external lighting managed by a Local Authority in a privately managed site and redevelopments of sites where external lighting remains.
	Ene 7: Low or Zero Carbon (LZC) Technologies	A more comprehensive list of technologies has been inserted, along with confirmation that Gas CHP can be used.
		Special case added: Photovoltaic panels in buildings with multiple dwellings.
	Ene 8: Cycle Storage	In the criteria table: "only applicable to communal storage" was removed. Clarification that the cycles are per dwelling was added.
		Changes in the definition of Adequately Sized Cycle storage when sheds are used.
		<i>continued</i>

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Code Category	Issue	Amendment
		Changes in the definition of secure storage, with specifications for flats and individual dwellings.
		New definition of Secure entrance lock, Proprietary System and for BS 3621:2004.
	Ene 9: Home Office	Changes in the sufficient space definition, some requirements were removed.
		New definition: Adequate Ventilation.
Water	Wat 1: Internal Water Use	Added note on averaging rain and grey water collection to confirm averaging rules.
		Microbial contamination: Requirement set that hot and cold water systems must be designed in accordance with HSE ACoP L8 to avoid the risk of legionellosis.
		Added note to confirm calculation procedure for where only one WC is to be supplied with grey water.
		Note included to state that ideally site specific data on rainfall should be used and can be obtained from the Met Office.
		Example added for how to calculate WC consumption in calculation procedures.
		Added example for how to calculate tap consumption where there are two taps of different flow rates on one sink and also illustrating how the 2/3 rule applies.
		Added formula to clarify how total consumption is calculated.
		Water softener formula amended.
		Note added to confirm that the rainwater may also be used towards Wat2 requirements.
		Note added to clarify situation where insufficient water is collected from rain or grey water to meet the demands of the fittings.
		Note added to confirm how the number of occupants are calculated.
		Common case of non compliance added to state that a requirement put in tenancy agreements to provide best practice white goods will not meet the credit requirements as this is not enforceable.
		Reference to EN997 added which sets out how WCs can comply with water regulations.
		Wat 2: External Water Consumption
Amended sufficient size criteria to clarify how rainwater collection systems can comply where they are providing water for both internal and external water use.		
Materials	Mat 1: Environmental Impacts of Material	Changes have been made on the definition of "building envelope".

continued

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Code Category	Issue	Amendment
	Mat 2 / 3: Responsible Sourcing of Materials – Basic Elements / Finishing Elements	Note added to Table 1-Tier Levels to clarify that where in situ concrete is used, certification of the manufacture of the cement, extraction of the aggregate and limestone used to make the cement, as well as the supply chain processes is to be provided.
		Table 2-EMS requirements: Further materials and clarifications has been added.
		In the “common cases of non-compliance” a note regarding British Gypsum has been added.
		Changes to the methodology, calculations and background so that it draws on the emerging responsible sourcing scheme.
Surface Water Run-off	Sur 1: Management of Surface Water Run-off from Developments	Change of Title.
		Rewording of aim to reflect changed criteria.
		Checklist removed.
		Assessment methodology has been updated in line with the changes.
	Special cases: Added references to clarify calculation procedures, also added reference to climate change allowance calculation.	
Sur 2: Flood Risk	Assessment methodology has been updated in line with the changes.	
Waste	Was 1: Storage of Non-recyclable Waste and Recyclable Household Waste	Title changed.
		Inclusion of automated collection system for waste collection.
		Introduced a table to show compliance with the mandatory requirement and a checklist for the accessibility to disabled people.
		Distance from entrance doors to recycling containers was reduced from 50m to: not usually exceed 30m
	Added a clarification of a situation of non-compliance for bins in the Adequate Internal Space definition.	
	Was 2: Construction Site Waste Management	Re-define waste groups and ensure they are in line with those defined in BRE SMARTStart as referred to in legislation.
		Changes in the assessment methodology, both for design and post construction stages.
		Changes in the best practice list, update according to legislative latest developments.
		Change in the checklist of the SWMP - mandatory requirement: Introduction of the revision of the SWMP and the existence of any decisions taken. Introduction of the waste groups in the SWMP and of the induction and training of staff and sub contractors.
		Changes in the <i>Reducing Construction Waste</i> Checklist.
		Changes in the <i>Commitment to Sorting and diverting from landfill Contribute Waste</i> Checklist.
	Was 3: Community Composting	Automated waste collection system can now comply with the requirements.
		Introduction of a checklist to assess if facilities are accessible to disabled people, also being asked in the evidence required.
<i>continued</i>		

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Code Category	Issue	Amendment
		Added a case of non-compliance: Where a house is serviced by a kitchen waste collection service, has a garden of its own and no individual composting facilities in the garden.
		Special case added: Where existing or proposed community schemes are acceptable.
Pollution	Pol 2: Nitrous Oxide (NOx) Emissions	Elimination of the exemplar dwelling rule in the assessment criteria, introduction of a default case instead.
		In the assessment methodology changes in requirements for both stages.
		Addition of conversion factors for figures in mg/MJ.
		Calculating the average NOx emissions for dwellings with more than one heating/hot water system: Introduction of the Pollution calculator tool and some specifications if a solar hot water system is installed.
		Table 1 now accepting the Solar Hot Water input.
		Several special cases were added.
Health and Wellbeing	Hea 1: Daylighting	New definitions: reasonableness check and angle of visible sky.
		Special case added: Calculations for larger developments.
	Hea 2: Sound testing	Special case added: It is good acoustic design not to have habitable rooms on one side of a separating wall or floor and non-habitable rooms on the other side.
	Hea 3: Private space	All references to ADM have been replaced by BS8300.
	Hea 4: Lifetimes Homes	A page on the Lifetime Homes website has been created to give additional guidance to Code assessors.
Changes in the definition of Lifetime Homes.		
Management	Man 1: Home User Guide	Contents of the Home User guide have been changed.
Ecology	Eco 1: Ecological Value of Site	Added definition of contaminated land including non-native invasive species.
		Added definition of non-native invasive species which includes Japanese knot weed and giant hogweed.
	Eco 2: Ecological Enhancement	Added note to state the preferably the ecologists report should be prepared at RIBA stage B as recommended by IEMA.
		Added requirement that recommendations must be enhancement in addition to what is required to comply with UK and EU law.
	Eco 4: Change in Ecological Value of the Site	Clarified situation where the report has not been produced by an SQE but has been verified.
	Eco 5: Building Footprint	Clarified the criteria to state Net Internal Floor Area.
		Added internal reference to calculation procedures to confirm how area weighted ratio is calculated for houses and flats.
Added formula for calculating Area Weighted average for a combination of houses and flats. Added formula for calculating site wide floor area to ground floor area.		

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